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Waste Wate Energy

Final Lesson

July 22, 2017

Waste Audit

How much food does my school waste?

**SWBAT:** analyze the amount of food their school wastes. Understand the importance of composting instead of wasting.

**Standard:** 3c – Engaging students in learning

2b – Establising a culture for learning

2.W.1 - Write opinion pieces on topics or texts, supporting a point

of view with reasons.

W2.8 – Personal experiences and text evidence (if applicable)

2.MD.9 – Represent and interpret data

**Teach**: Teacher asks “Can you tell me what is garbage?” Students might answer “Trash, things you throw away,” etc. Teacher response: you are right. Since we know “what garbage is does anyone know what is waste?” Teacher waits for answers. Students might repeat the definition for garbage. If they seem confused you can tell them that garbage and waste are the same thing. Waste consists of everyday items such as product packaging, grass clippings, furniture, clothing, bottles, food scraps, newspaper, appliances, and batteries. Teacher asks “what are some things you think we waste as people?” Teacher begins to chart down their answers. Working in small groups of 3 or 4. Students will have 2 minutes to discuss and write down things they think our school wastes. (Give students clip boards, paper and pencils) Teacher: today students we will begin a project together to figure out how much food our school wastes. How much food does our school throw away? We will be collecting data from our cafeteria everyday for a week to estimate the amount of this waste.

FYI: As part of Mayor DeBlasio’s “Zero Waste Schools”, every school will be receiving the Cafeteria station bins. So this lesson will be very easy in terms of figuring out what’s being wasted. We will only be using the composting bin for this project. Teacher will need to coordinate with the custodian for access to the compost waste after the last lunch period in an effort to collect the weight data.

**Materials:** scale, food waste, data sheet

**Try it out**: Students will receive a data sheet. This is the sheet they will use to collect the compost data for a week. At the end of the last lunch period, for one week our class will be going to the cafateria to weigh the compost from all lunch periods. Student volunteers will be called upon to read the scale for each bag of compost weighed. Once the weight is taken, students will record the data on the Food Waste Audit sheet. (sample below)

Ex. PS 204 Compost Audit

On Monday \_\_\_\_\_\_\_\_ lbs of food waste

On Tuesday \_\_\_\_\_\_\_ lbs of food waste

On Wednesday ­­­­\_\_\_\_\_\_ lbs of food waste

On Thursday \_\_\_\_\_\_\_ lbs of food waste

On Friday \_\_\_\_\_\_\_ lbs of food waste

Total food Waste for 1 week ­­­­­­\_\_\_\_\_\_ lbs

**Enrichment:** If a school year is 40 weeks. Estimate the amount of food waste in an entire school year.

At the end of the week, all the data will be added together to comprise an estimated number of lbs of compost our school uses each week. **Enrichment** for students could be to calculate the estimated amount of food waste the school create for an entire school year. This would be based on a 40 week school year.

**Teach**: Once this data is collected. Bring students back to the classroom to have a discussion about composting. Teacher asks “Can anyone tell me what is composting? What do we know about composting?” Solicite answers from students. Define compost for students as any decayed organic material used as a plant fertilizer. If it was ever alive it’s organic, and therefore compost.

Teacher asks “How can composting be helpful to the environment?” “How can composting help reduce our food waste?” Give students a chance to turn and talk about the answers to these questions. Have students share their responses.

**Task:** Tell students they will be writing about what they can do to reduce the amount of food wasted in the world. Further explain, in their writing they will come up with a plan for our school to reduce the amount of food being wasted. They will be following the writing rubric for opinion writing.

Opinion Writing Rubric

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Second Grade Opinion** | Level 1 | Level 2 | Level 3 | Level 4 |
| Give the number of the standard being assessed and a general indication of what the standard measures. | Describe what you might see in the paper of a struggling student. | Describe what you might see in the paper of a student who is close, but not quite at mastery. | Copy the wording of the standards in this column to set the bar for mastery. | Describe what a student who breaks the rules and thinks out of the box might produce. |
| W 2.1 Introduce the topic and states an opinion | I named the topic.  I did not give an opinion.  *I am writing about ear piercing.* | I introduced the topic.  I did not give a clear opinion.  *I want my ears pierced.* | I introduced the topic  I stated my opinion.  *I think I should have my ears pierced.* | I introduced the topic.  I supported my opinion with my point of view.  *I think I should have my ears pierced even though my mom thinks I should not.  Here are my reasons why.* |
| W 2.1 supply reasons that support the opinion | My reasons do not support my topic or opinion.  *I saw the best earrings at the store.* | I supply one reason to support my topic or opinion.  *I would look nice with my ears pierced.* | I supply different reasons to support my opinion.  *I would look nice with my ears pierced.  Many of my friends in class have their ears pierced already.* | I supplied different reasons to support my opinion and my reasons build on each other.  *I would look nice with my ears pierced. I can wear different earrings for different occasions.  I can even wear pumpkins for Halloween, which I know is your favorite holiday.* |
| W 2.1 Use linking words (e.g., *because, and also*) to connect opinions and reasons | I used linking words incorrectly in my writing. | I used the same linking word throughout my writing.  I only used one linking word. | I used a variety of linking words to connect opinions and reasons. | I used a variety of linking words and phrases to connect opinions and reasons.  *For example, on the other hand, in contrast, as a result of, even though* |
| W 2.1  Provide a concluding statement or section |  | Sense of closure | Concluding statement | Concluding statement or section |

**Enrichment:** Explain to students that will be present our ideas for reducing food waste to the entire school. Then we will be implementing some of the student ideas. We will then revisit this experiment in about 3-4 months to see if any of the ideas students came up with works to reduce food waste. The idea is to reduce the amount of food waste at our school.

Ultimately, we can take these ideas for reducing food waste and use them at home.